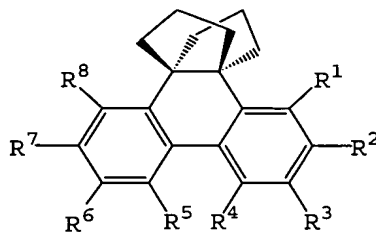


What is claimed is:

- 1 1. A phenanthrene compound of formula (I):



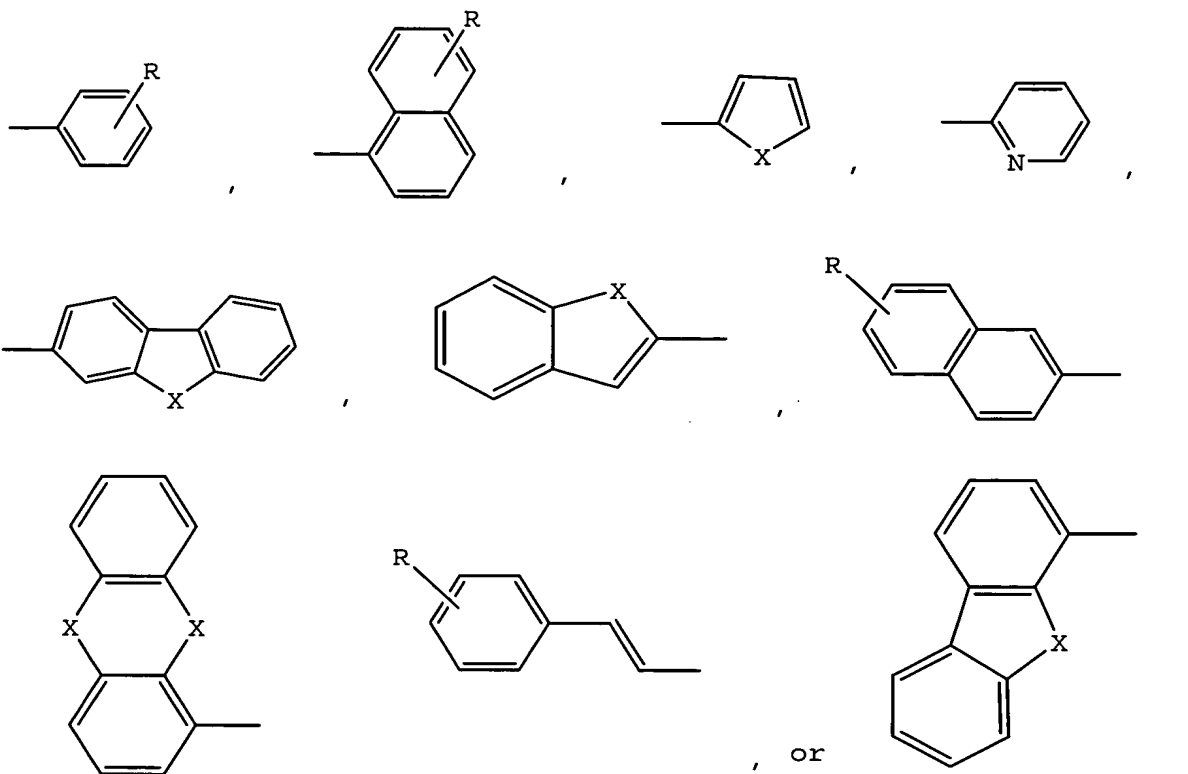
Formula (I)

2 wherein, each R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ is
3 independently hydrogen, halogen, C₁₋₆ alkyl, C₁₋₆
4 alkoxy, or a conjugated group.

1 2. The phenanthrene compound as claimed in claim 1,
2 wherein one of R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ is a
3 conjugated group.

1 3. The phenanthrene compound as claimed in claim 2,
2 wherein the conjugated group is a substituted or
3 unsubstituted phenyl, substituted or unsubstituted
4 heterocyclic group, substituted or unsubstituted polycyclic
5 phenyl, or substituted or unsubstituted polycyclic
6 heterocyclic group.

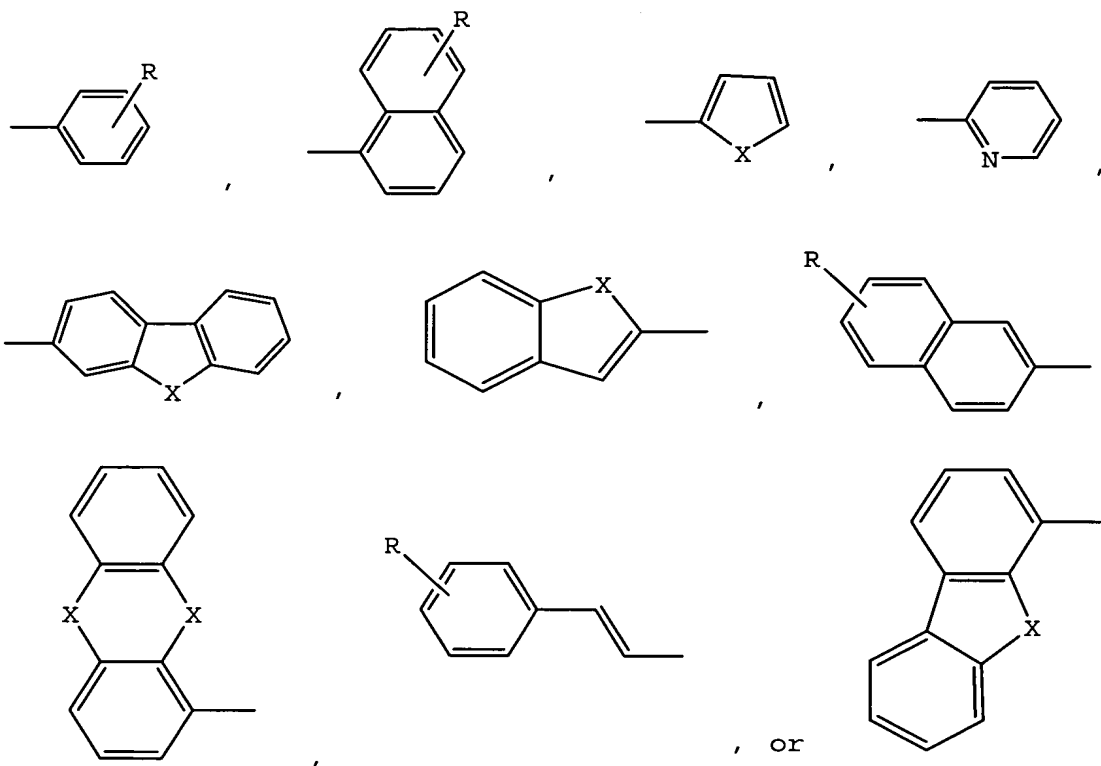
1 4. The phenanthrene compound as claimed in claim 3,
2 wherein the conjugated group is:



wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or

N.

5. The phenanthrene compound as claimed in claim 2,
wherein R² or R⁷ is



wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or N.

6. The phenanthrene compound as claimed in claim 5, wherein R¹, R³, R⁴, R⁵, R⁶, and R⁸ are hydrogen.

7. The phenanthrene compound as claimed in claim 6, wherein R² and R⁷ are each halogen.

8. The phenanthrene compound as claimed in claim 7, wherein R² and R⁷ are each bromine.

9. The phenanthrene compound as claimed in claim 6, wherein R² and R⁷ are each naphthyl.

10. The phenanthrene compound as claimed in claim 6, wherein R² and R⁷ are each ethoxyphenyl.

11. The phenanthrene compound as claimed in claim 6, wherein R² and R⁷ are each butylphenyl.